

Sverdrup Environmental, Inc.
4400 College Boulevard
Suite 160
Overland Park, Kansas 66211

913 663-2101
FAX: 913 663-1668

Site:	MOUND ST. PCB
ID #:	MO0000093682
Break:	1, 2
Other:	Sverdrup 4-9-96

April 9, 1996

Dr. Peter Culver, P.E.
U.S. Environmental Protection Agency
Region VII, Superfund Branch
726 Minnesota Avenue
Kansas City, Kansas 66101

Project: ARCS Region VI, VII, and VIII Contract No. 68-W9-0032
Subject: Trip Report for Screening Site Inspection Activities at the Mound Street PCB Site
in St. Louis, Missouri (CERCLIS ID No. MO0000093682)

Dear Dr. Culver:

Sverdrup Corporation (Sverdrup) conducted a Screening Site Inspection (SSI) at the Mound Street PCB Site located at 100 Mound Street in St. Louis, Missouri (see Figure 1). The SSI field activities were conducted on April 2 and 3, 1996. The inspection team consisted of the following individuals:

Michael W. McCurdy, Site Manager (Sverdrup)
Michael T. May, Geologist (Sverdrup)
Randy Schademann, Geoprobe™ Operator (Ecology & Environment)
Scott Hayes, Field Technician (Ecology & Environment)
Andy Mazzeo, Field Technician (Ecology & Environment)

No personnel representing McKinley Iron or Petroleum, Fuel and Terminal (Apex Oil) were present during the field activities.

Personnel traveled to St. Louis on April 1, 1996. Site work commenced on April 2, 1996, with the measurement of the water level in the south well. The water depth was measured at 26.60 feet below ground surface. Well purging activities were to be initiated with E&E's peristaltic pump; however, due to pump problems, a second pump was ordered for delivery the next morning. Site work continued with the collection of subsurface soil samples utilizing the Geoprobe™. Sample locations are shown in Figure 2. Subsurface soil samples were collected on April 2 and 3, 1996. Construction debris consisting of bricks, rock and concrete were encountered during the borings near the former Mound Street Power Plant building. Numerous, unsuccessful attempts to obtain a soil sample were made along the perimeter of the former building site. Geoprobe™ refusal occurred at 18 feet, 4 feet and 1 foot at the various probe locations attempted. The only successful soil sample obtained at the former building location was in the southeastern corner (see Figure 2). At approximately 1:45 pm on April 2, a voice-mail message for Dave Crawford, USEPA Region VII, was left informing him of the difficulty Sverdrup was having in collecting soil borings at the former building location. Sverdrup recommended the work around the former building location be halted and continue the



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subsurface investigation in the area between the flood wall and former site building. A voice-mail message for Sverdrup was received from Dave Crawford, USEPA Region VII, on April 2, 1996 at 2:45 pm. The message stated the recommendation to halt work at the former building location was acceptable and to proceed as indicated, pursuant to Sverdrup's message left for Mr. Crawford. Mr. Crawford also stated he would be available in the morning if Sverdrup needed to contact him, but it was not necessary. Sverdrup continued with the subsurface investigation by probing in the vacant area to the east of the former building location. Samples were collected from four discrete locations (see Figure 2) using a Geoprobe™ operated by Ecology & Environment. Samples for volatile organics, semi-volatile organics and polychlorinated biphenyls (PCBs) were collected in accordance with the approved sampling plan.

Groundwater samples were collected from two existing monitoring wells on April 3, 1996. Sample locations are shown in Figure 1. Each well has a six-inch diameter metal casing, with a 1½-inch diameter sampling port. Since a standard bailer could not be used, well purging was initiated by use of a peristaltic pump. Purging was continued until pH, temperature and conductivity parameters were within 10 percent for two consecutive readings, taken approximately 10 minutes apart. Water samples were collected immediately after completion of purging activities. Samples for volatile organics, semi-volatile organics and PCBs were collected in accordance with the approved sampling plan.

A total of seven soil samples and six water samples were collected, including QA/QC samples and duplicates. The sample series for this activity was DC1CY. A summary of the samples collected is included in Table 1. Sverdrup and Ecology & Environment personnel left the site on April 3, 1996. The samples were hand-delivered to the U.S. EPA laboratory in Kansas City, Kansas, for analysis on April 4, 1996.

All field activities were performed in accordance with the approved Field Sampling Plan (FSP), which was approved by EPA on March 26, 1996. The following deviations from the FSP should be noted:

- 1) Soil and water sample numbers do not correspond to the numbers submitted in the FSP.
- 2) Numerous attempts were made to collect subsurface soil samples from the area around the site of the former building. The Geoprobe™ could not penetrate through a solid layer, believed to be concrete, at a depth of approximately 18 - 20 feet. Attempts were made to collect soil samples above this solid layer; however, none were able to be obtained except for the southeastern corner sample (Figure 2). In the southwestern corner of the former

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building location, the Geoprobe™ could not go beyond 4 feet and in a two instances, 1 foot. Along the eastern edge of the former building location, water was observed in the soil sample tube; however, there was not enough water to sample. Attempts to collect soil and water samples were halted in this area due to bricks, rock and concrete debris encountered at the former building site (Figure 2).

- 3) Subsurface soil samples were collected in a vacant area between the former building location and the concrete flood wall. Five subsurface soil samples were collected in three sample locations. Two samples were collected from the same probe boring at 18 - 20 feet and at 25 - 27 feet below ground surface. One sample and duplicate were obtained from two adjacent borings in one area. The fifth sample was obtained approximately half way between the other two location (Figure 2).
- 4) Well purging was performed using a peristaltic pump instead of disposable bailers. The pump is more effective than the Geoprobe™ vacuum system and bailers could not be used.
- 5) Three well volumes were not extracted from the wells during purging activities. The water level was at 26.07 feet below ground surface at the south well and was at 24.68 feet below ground surface at the north well. The bottom of the wells are 46.06 feet and 47.27 feet below ground surface for the south well and north well, respectively. Tubing was installed in the wells to pump from approximately 30 feet below ground surface. Pumping was conducted near the maximum head the peristaltic pump could overcome. At the pumping rates attained by the peristaltic pumps, it would have required approximately 16 hours to remove one well volume. It was decided to collect water samples after the pH, temperature and conductivity parameters were within 10 percent for two consecutive readings, regardless of the volume removed.

The following observations were made during the SSI field activities:

- 1) Soil and water samples were field screened with an Hnu photoionization detector. No volatile organic readings were measured for any of the samples.
- 2) Due to the difficulty in probing at the former building location, it is assumed the basement was filled with debris from the building demolition. Water was observed in the Geoprobe™ sample tube at several probe locations at the former building site. Water samples however, could not be obtained.

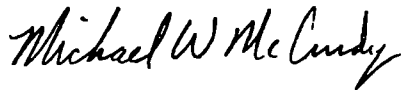
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An SSI Report detailing the results of the investigation will be prepared and submitted within two weeks of the receipt of the complete analytical data transmittal. Photographs taken during this site visit will be included in the SSI Report.

If you have any questions concerning this letter or the site in general, please do not hesitate to contact me at (913) 663-2108.

Sincerely,

SVERDRUP CORPORATION, Inc.

A handwritten signature in black ink, reading "Michael W. McCurdy". The signature is written in a cursive, flowing style.

Michael W. McCurdy, CHMM
Project Manager

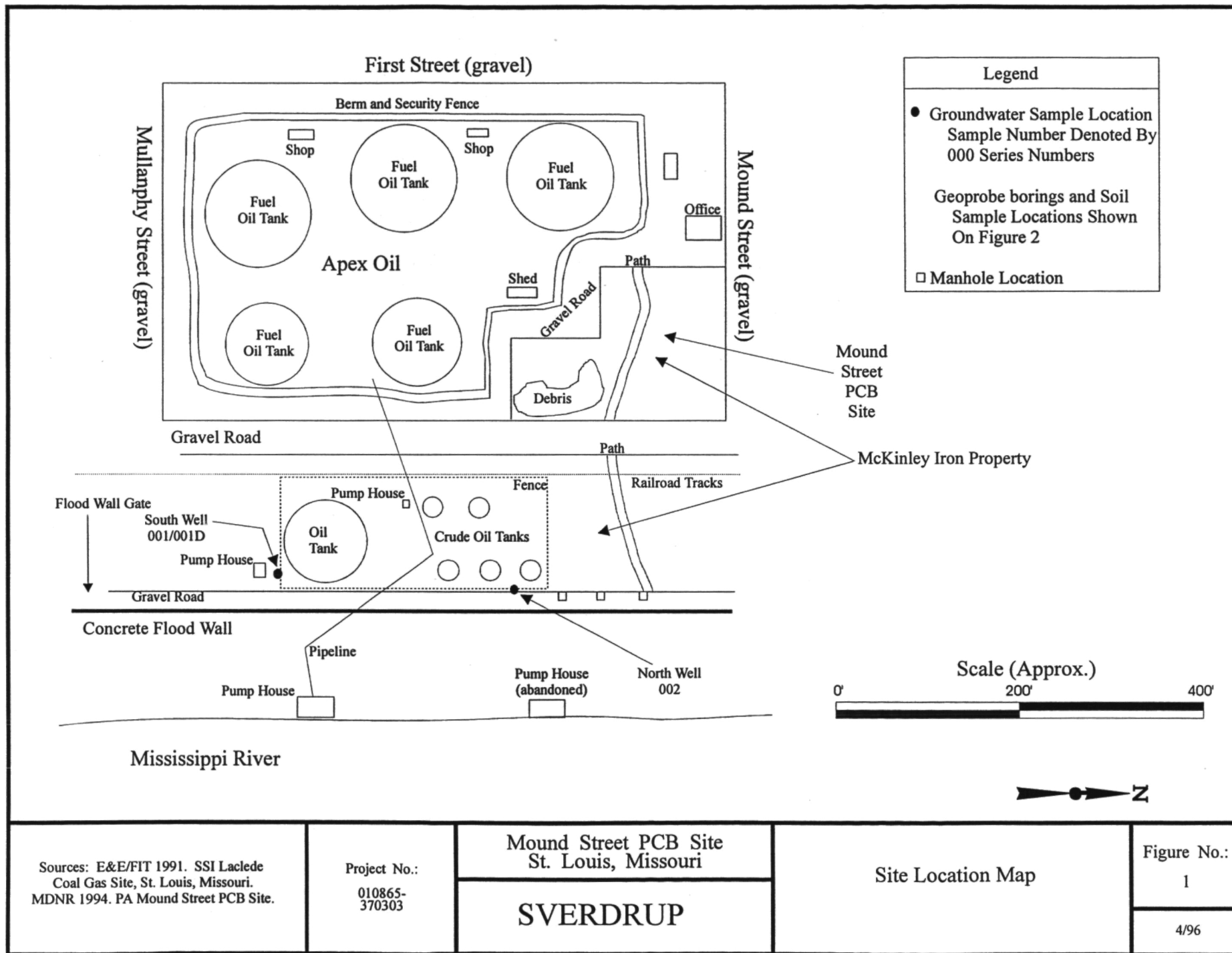
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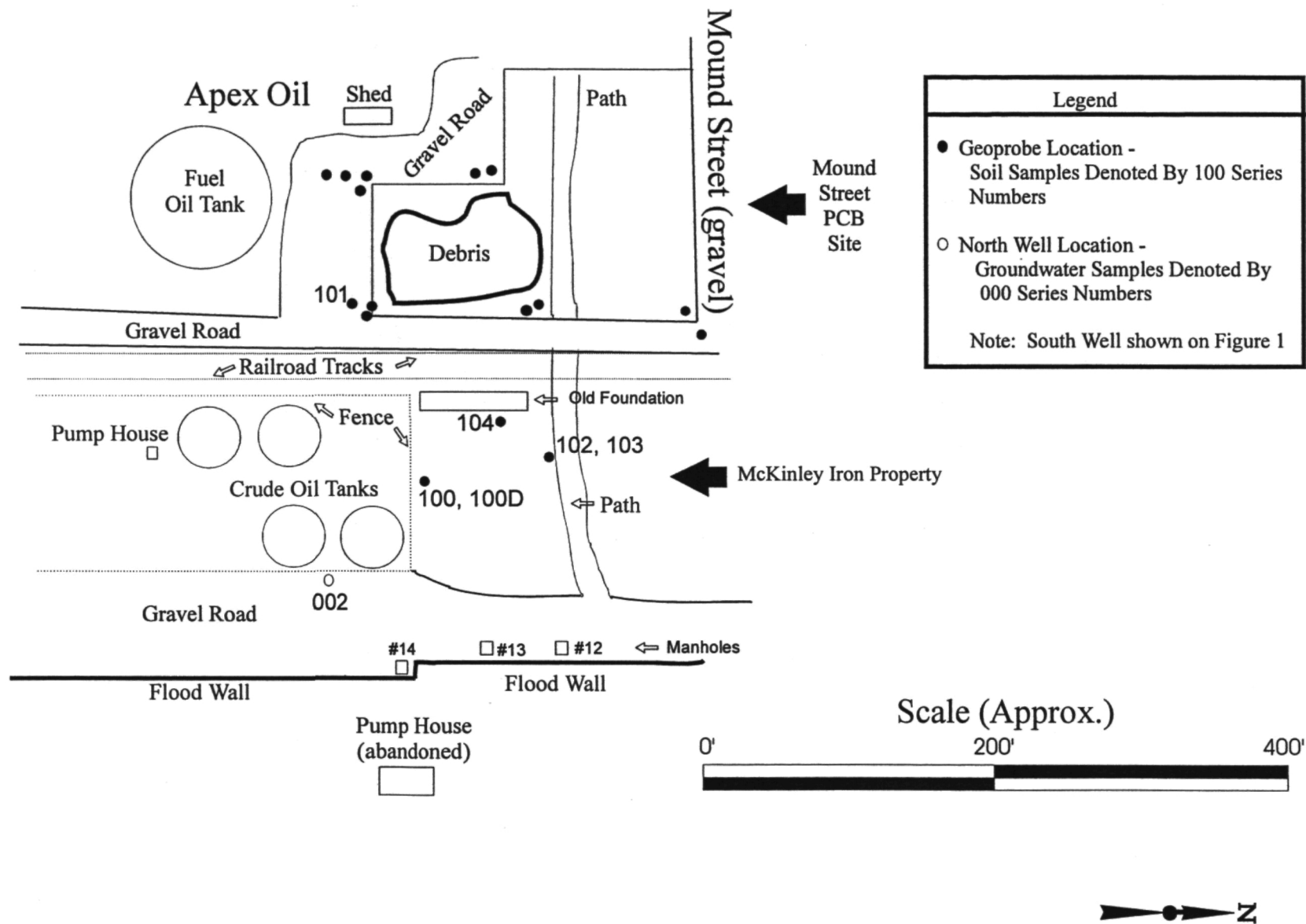
TABLE 1
Sample Summary
Mound Street PCB Site
St. Louis, Missouri
Sample Series DC1CY
April 2 - 3, 1996

<i>Sample No.</i>	<i>Sample Description</i>	<i>Sample Location/Rationale</i>	<i>Analyses</i>	<i>Time/Date of Collection</i>
DC1CY-001	Existing Well SW (Water)	Existing Monitoring Well - South Well/Identify contamination in aquifer	VOC Semi-vol PCB	11:28/4-3
DC1CY-001D	Existing Well SW (Water)	Duplicate of DC1CY-001	VOC Semi-vol PCB	11:28/4-3
DC1CY-002	Existing Well NW (Water)	Existing Monitoring Well - North Well/Identify contamination in aquifer	VOC Semi-vol PCB	12:15/4-3
DC1CY-003	Field Blank (Water)	QA/QC	VOC Semi-vol PCB	9:15/4-3
DC1CY-007F	Trip Blank (Water)	QA/QC (Provided by Region VII Laboratory)	VOC	
DC1CY-008	Equipment Rinsate (Water)	QA/QC	VOC Semi-vol PCB	16:10/4-2
DC1CY-100	Off-site Geoprobe™ Boring (Soil)	Off-site/Identify contamination migration toward the Mississippi River from the former power plant building location.	VOC Semi-vol PCB	15:30/4-2
DC1CY-100D	Off-site Geoprobe™ Boring (Soil)	Duplicate of DC1CY-100	VOC Semi-vol PCB	15:30/4-2

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DC1CY-101	On-site Geoprobe™ Boring (Soil)	Potential source area/Identify contamination at the former power plant building location.	VOC Semi-vol PCB	10:05/4-2
DC1CY-102	Off-site Geoprobe™ Boring (Soil)	Off-site/Identify contamination migration toward the Mississippi River from the former power plant building location.	VOC Semi-vol PCB	14:20/4-2
DC1CY-103	Off-site Geoprobe™ Boring (Soil)	Off-site/Identify contamination migration toward the Mississippi River from the former power plant building location.	VOC Semi-vol PCB	14:20/4-2
DC1CY-104	Off-site Geoprobe™ Boring (Soil)	Off-site/Identify contamination migration toward the Mississippi River from the former power plant building location.	VOC Semi-vol PCB	8:40/4-3
DC1CY-108F	Trip Black (Soil)	QA/QC (Provided by Region VII Laboratory)	VOC	





Sources: E&E/FIT 1991. SSI Laclede Coal Gas Site, St. Louis, Missouri.
MDNR 1994. PA Mound Street PCB Site.

Project No.:
010865-
370303

Mound Street PCB Site
St. Louis, Missouri

SVERDRUP

Geoprobe and Soil Sample
Location Map

Figure No.:
2

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